

REMARKS

Claims 7-28 are pending in this application. No new matter has been added.

Priority

Applicants request the Examiner acknowledge Applicants' claim to priority and indicating that all certified copies of the priority documents have been received.

Drawings

Applicants appreciate the Examiner's acknowledgement that the drawings filed on September 6, 2012 have been accepted.

Information Disclosure Statement

Applicants appreciate the Examiner's consideration of each of the documents cited in the Information Disclosure Statement filed on September 6, 2012.

Allowable Subject Matter

Claims 17-28 are allowed. Claims 8-11 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Rejection under 35 U.S.C. § 102

Claims 7 and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2012/0049868 ("Maharyta"). Applicants traverse this rejection for at least the following reasons.

Claim 7 recites, *inter alia*, “a differential sensing block configured to convert a charge corresponding to a difference between a first current and a second current flowing in each of the two channels into an output voltage.” At least this feature is not disclosed or suggested by Maharyta.

Maharyta discloses a capacitance sensing system 1200 including a current conveyor based oscillating circuit 1202, a capacitance sense structure 1204, an electrode array 1246 and a controller circuit 1252. FIG. 12 illustrates the capacitance sensing system 1200, which is provided below.

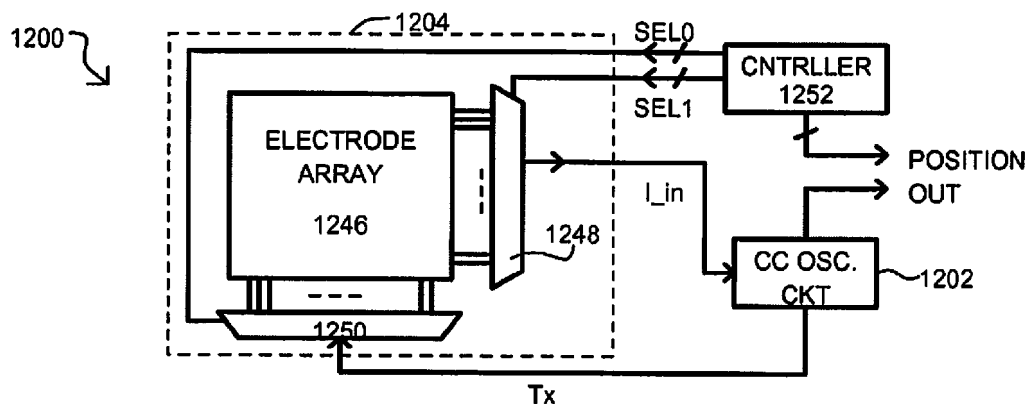


FIG. 12

The oscillator circuit 1202 “varies an output signal in response to an input current generated by a mutual capacitance between various electrodes.” Paragraph [0116] of Maharyta.

In describing the electrode array, paragraph [0118] of Maharyta recites:

[A]n electrode from one set (e.g., 1354 or 1356) may be connected to receive a Tx output from an oscillator circuit, while an electrode from another set (e.g., 1356 or 1354) may be connected to provide a current input to a CC based oscillator circuit. In such an arrangement, an oscillator circuit operation may vary in response to a mutual capacitance between the selected electrodes.

On page 3 of the Office Action, the Examiner relies on the oscillator circuit 1202 and paragraphs [0115]-[0116] of Maharyta to teach the “differential sensing block

configured to convert a charge corresponding to a difference between a first current and a second current flowing in each of the two channels into an output voltage,” of claim 7.

However, the oscillator circuit 1202 does not differentially sense current flowing in two channels. More specifically, the oscillator 1202 performs operations based on a single current, the current I_{in} . Maharyta does not disclose or suggest that the oscillator 1202 performs any operations based on a difference between currents of two channels.

Therefore, Maharyta fails to disclose or suggest the “differential sensing block configured to convert a charge corresponding to a difference between a first current and a second current flowing in each of the two channels into an output voltage,” of claim 7.

Claim 12 is patentable at least by virtue of their dependency on claim 7.

CONCLUSION

Accordingly, in view of the above remarks, reconsideration of the objections and rejections and allowance of each of claims 7-28 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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